

Appln. No. 09/748,650
Amendment dated August 8, 2005
Reply to Office Action of May 9, 2005

This listing of claims will replace all prior versions,
and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended). A method of
imaging a digital display onto an image plane, said
method comprising the steps of:

a) providing a digital display, a plurality of lenses,
and an image plane defined by a photosensitive medium,
said digital display, said plurality of lenses, and said
photosensitive medium spaced along an optical axis
extending from said digital display through said
plurality of lenses, and toward said photosensitive
medium such that a digital image provided by said
display may be brought into focus onto said
photosensitive medium by said plurality of lenses, and
one of said plurality of lenses is a transposable lens,
said transposable lens capable of being transposed out
of said optical axis during the operation of ~~said~~ a
printer;

b) illuminating said digital display with a first
digital image data set for a fixed period of time,
whereby light from each pixel of said digital display
exposes a pixel image on said photosensitive medium,
turning off said digital display;

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c) transposing for a first time, said transposable lens a fixed distance, said fixed distance being such that each of said pixel images exposed onto said photosensitive medium is shifted by a distance equal to the width of one pixel image;

d) illuminating said digital display, with a second digital image data set, for a second fixed period of time, turning off said digital display;

e) transposing, for a second time, said transposable lens said fixed distance;

f) illuminating said digital display, with a third digital image data set, for a third fixed period of time, turning off said digital display; and

g) whereby said method of imaging increases the perceived resolution of the digital image focused onto said photosensitive medium.

Claim 2 (original). The method of claim 1 wherein each pixel of said digital display is capable of illuminating only one color

Claim 3 (original). The method of claim 1 wherein the movement of said transposable lens for both said

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transposing for a first time and said transposing for a second time are in a direction along one axis.

Claim 4 (original). The method of claim 3 wherein the movement of said transposable lens for both said transposing for a first time and said transposing for a second time are in a direction along one axis and in the same direction.

Claim 5 (original). The method of claim 3 wherein the movement of said transposable lens for both said transposing for a first time and said transposing for a second time are in a direction along one axis and in opposite directions.

Claim 6 (original). The method of claim 1 wherein said first, second and third fixed periods of time are a portion of said photosensitive medium's total exposure time.

Claim 7 (original). The method of claim 1 wherein said digital display is a liquid crystal display.

Claim 8 (original). The method of claim 1 wherein said first digital image data set, and said second digital image data set, and said third digital image data set, are all the same digital image data set.

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Claim 9 (previously amended). A printer having a housing that encloses, in a common cavity thereof, an arrangement comprising a digital area array display, a plurality of lenses, and an image plane onto which a photosensitive medium may be superposed, the arrangement is such that:

(a) said plurality of lenses are located between said digital area array display and said image plane;

(b) said digital area array display, said plurality of lenses, and said image plane are spaced along an optical axis extending from said digital area array display through said plurality of lenses, and toward said image plane such that a digital image provided by said display can be brought into focus onto said imaging plane by said plurality of lenses;

(c) one of said plurality of lenses is a transposable lens, the diopter power of said transposable lens is less than the diopter power of a first lens of said plurality of lenses, and said transposable lens capable of being transposed out of said optical axis during the operation of said printer, said transposable lens moving in incremental lengths equaling the width of one pixel;
and

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(d) whereby said printer increases the perceived resolution of the digital image focused onto said imaging plane.

Claim 10 (original): The printer of claim 9 wherein each pixel of said digital display illuminates in only one color.

Claims 11 - 15 (previously canceled).